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Cover: This 3-dimensional reconstruction of a confocal series of a Di-OC6(3) labelled *Helisoma* growth cone demonstrates the spatial distribution of intracellular organelles. The exterior (white) has been cut away to reveal the position of mitochondria (red) and endoplasmic reticulum (green). Neuronal growth cones display a wide range of behaviors that are regulated in part by intracellular calcium levels and which enable them to direct outgrowth and establish synaptic circuitry. Intracellular organelles are implicated in determining the spatial extent of calcium signals within growth cones by their ability to release calcium upon physiological stimulation and their intriguing distribution at the base of the growth cone and in limited amounts in the peripheral margins of the growth cone at the base of individual filopodia. All peripheral organelles are shown, whereas some central organelles have been rendered invisible to minimize the appearance of undifferentiated clumps. See Davenport et al., pages 1–15, this issue.

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Cover: Phase and fluorescence confocal image of live 12 somite stage mouse embryo labelled with TO-PRO-1, a benzothiazolium-4-quinolium dye, to identify regions of cell death in the neuroectoderm. Labelled cells are present in rhombomeres 3, and 5 of the hindbrain, which, in avians, have been shown to contain a population of cells undergoing the process of cell death during normal development. See Serbedzija et al., pages 275–282, this issue.

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